Listing of Claims:

1. (Currently Amended) A method of conductively cooling a heat-generating electronic component having an operating temperature range above normal room temperature and a first heat transfer surface disposable in thermal adjacency with a second heat transfer surface of a thermal dissipation member to define an interface therebetween, said method comprising the steps of:

(a) providing a thermally-conductive material which is form-stable at normal room temperature in a first phase and conformable in a flowable second phase to substantially fill said interface, said material having a transition temperature from said first phase to said second phase within the operating temperature range of said electronic component, and said material [consisting essentially of at least one] comprising a mixture of a resin [or wax component blended with] having a melting temperature of from about 90-100°C, a wax having a melting temperature of from about 50-60°C, and at least one thermally-conductive filler;

(b) [forming] applying said material [into a self-supporting and free-standing film] in the form of a layer, [said layer consisting essentially of said material and having a thickness of from about 1-10 mils;

(c) applying said layer] to one of said heat transfer surfaces;

([d] c) disposing said heat transfer surfaces in thermal adjacency to define said interface; and

([e] d) energizing said electronic component effective to heat said layer to a temperature which is above said phase transition temperature.

2. (Currently Amended) The method of claim 1 further comprising an additional step between steps ([d] c) and ([e] d) of applying an external force to at least one of said heat transfers defining said interface.

5. (Currently Amended) The method of claim 1 wherein said self-supporting layer is [formed] applied in step (b) by coating a film of said material onto a surface of a release sheet, [and wherein said layer is applied in step (c) by] adhering said film to one of said heat transfer and removing said release sheet to expose said film.

6 Canceled.

7. (Currently Amended) The method of claim [6] 1 wherein said material has a phase transition temperature of from about 60-80°C.

8. (Currently Amended) The method of claim [6] 1 wherein said one or more thermally-conductive fillers is selected from the group consisting of boron nitride, alumina, aluminum oxide, aluminum nitride, magnesium oxide, zinc oxide, silicon carbide, beryllium oxide, and mixtures thereof.

9. (Currently Amended) A thermally-conductive interface for interposition between a heat-generating electronic component having an operating temperature range above normal room temperature and a first heat transfer surface disposable in thermal adjacency with a second heat transfer surface of a thermal dissipation member, said interface comprising a [self-supporting and free-standing film] layer [having a thickness of from about 1-10 mils and consisting essentially] of a thermally-conductive material which is form-stable at normal room temperature in a first phase and substantially conformable in a flowable second phase to said interface surfaces, said material having a transition temperature from said first phase to said second phase within the operating temperature range of said electronic component, and said material [consisting essentially of at least one] comprising a mixture of a resin [or wax component blended with] having a melting temperature of from about 90-100°C, a wax having a melting temperature of from about 50-60°C, and at least one thermally-conductive filler.

11. Canceled.

12. (Currently Amended) The interface of claim [11] 9 wherein said material has a phase transition temperature of from about 60-80°C.

13. (Currently Amended) The interface of claim [11] 9 wherein said one or more thermally-conductive fillers is selected from the group consisting of boron nitride, alumina, aluminum oxide, aluminum nitride, magnesium oxide, zinc oxide, silicon carbide, beryllium oxide, and mixtures thereof.